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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/936,080	03/12/2002	D. Dwight Brayton	325.089-US1	7920
34284	7590	08/18/2004	EXAMINER	
ROBERT D. FISH RUTAN & TUCKER LLP 611 ANTON BLVD 14TH FLOOR COSTA MESA, CA 92626-1931			BARBEE, MANUEL L	
			ART UNIT	PAPER NUMBER
			2857	

DATE MAILED: 08/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/936,080	Applicant(s) BRAYTON ET AL.	
	Examiner Manuel L. Barbee	Art Unit 2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,3-5 and 10-13 is/are allowed.
- 6) ☒ Claim(s) 6-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al. in view of Kobayashi et al. (JP 09330118 A).

With regard to providing a simulator coupled to a control system at a sensor input port and an actuator output port, and causing the simulator to apply a signal to the sensor input port and monitor the actuator output port, as shown in claim 6, Miller et al. teach using a simulator to send simulated sensor data to a process control computer and sending command signals from the process control computer to the simulator (col. 3, lines 9-65). Miller et al. do not teach a connection to data relating to the internal state of the controller, as shown in claim 6. Kobayashi teach monitoring the internal state of control equipment (Abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the process control validation method, as taught by Miller et al., to include internal state monitoring, as taught by Kobayashi et al., because then abnormality in the controller would have been available to a maintenance person (Kobayashi et al., Abstract).

With regard to tying into a network used as a communication segment between the controller and the I/O interface, as shown in claim 7, Miller et al. teach connecting to the I/O hardware of the process control computer (col. 3, lines 24-36). With regard to analog/digital converters, as shown in claim 8, Miller et al. teach an analog to digital converter and a digital to analog converter for communication with the simulation system (Fig. 2, ADC 34, DAC 36).

Miller et al. do not teach connecting a point allowing the controller to report its internal state, as shown in claims 7 and 9. Kobayashi teach monitoring the internal state of control equipment (Abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the process control validation method, as taught by Miller et al., to include internal state monitoring, as taught by Kobayashi et al., because then abnormality in the controller would have been available to a maintenance person (Kobayashi et al., Abstract).

Allowable Subject Matter

3. Claims 1, 3-5 and 10-13 are allowed.
4. The following is a statement of reasons for the indication of allowable subject matter: None of the prior art teaches a method for training process operators that includes providing a plant comprising a human machine interface to a control system coupled to plant sensors and actuators and controlling a process, disconnecting all the sensors and actuators from the control system, connecting a simulator to the control system in place of the sensors and actuators and causing the simulator to simulate plant events, as shown in claim 12.

5. Applicant's arguments filed 17 May 2004 with regard to claims 6-9 have been fully considered but they are not persuasive. Applicant states that the process monitoring as taught by Kobayashi is executed using a dedicated internal state monitor, which is entirely inconsistent with use of a simulator. Applicant further states that Kobayashi teaches away from the claimed subject matter by using the internal state monitor to gather data directly from plant devices, rather than to obtain these data from the control equipment. Claim 6 has limitations for coupling to three points of a control system including "a point from which data relating to the internal state of the controller can be obtained" and a limitation for "obtaining data on the internal state of the controller from the second point." Kobayashi teaches monitoring the internal state of control equipment (Abstract). While Kobayashi may also teach a dedicated internal state monitor and using the internal state monitor to gather data directly from plant devices, Kobayashi does teach a connection to a control part and monitoring the internal state (Abstract, Figure 1). Additional features do not teach away from the invention or the combination with Miller. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the process control validation method, as taught by Miller et al., to include internal state monitoring, as taught by Kobayashi et al., because then abnormality in the controller would have been available to a maintenance person (Kobayashi et al., Abstract).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manuel L. Barbee whose telephone number is 571-272-2212. The examiner can normally be reached on Monday-Friday from 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on 571-272-2216. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mlb


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